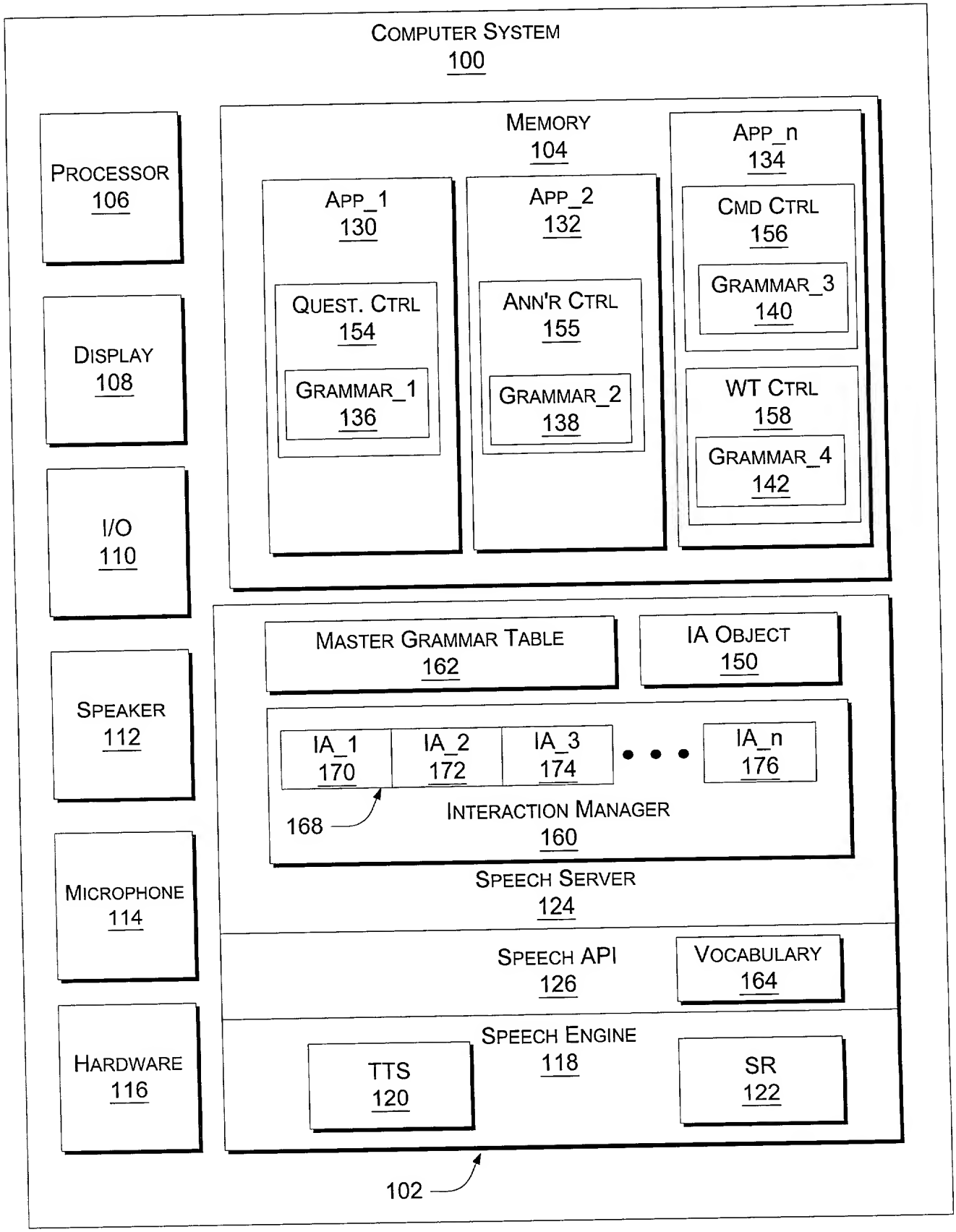
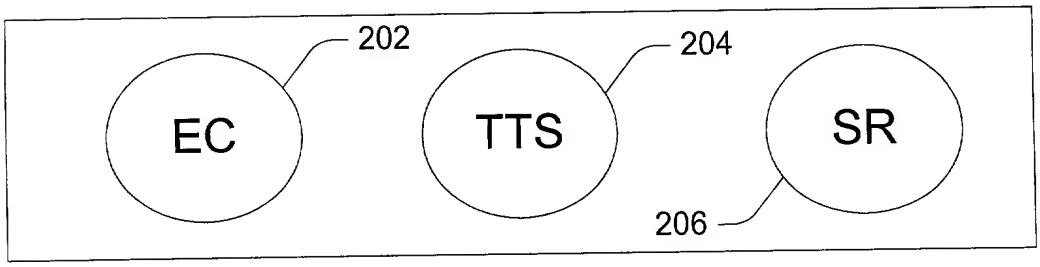
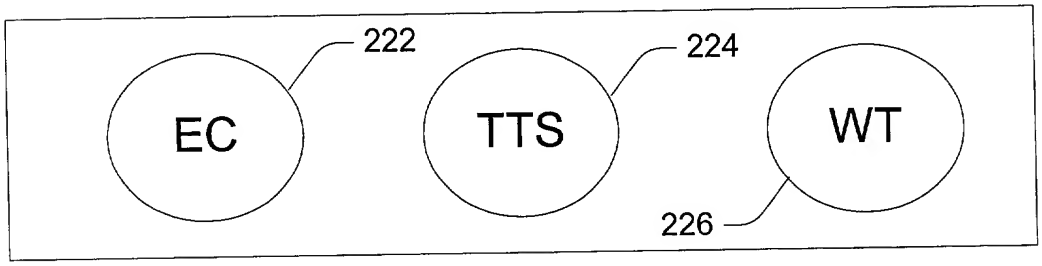

COMPUTER SYSTEM
100
PROCESSOR
106
DISPLAY
108
I/O
110
SPEAKER
112
MICROPHONE
114
HARDWARE
116
MEMORY
104
APP_1
130
QUEST. CTRL
154
GRAMMAR_1
136
APP_2
132
ANN'R CTRL
155
GRAMMAR_2
138
APP_n
134
CMD CTRL
156
GRAMMAR_3
140
WT CTRL
158
GRAMMAR_4
142
MASTER GRAMMAR TABLE
162
IA OBJECT
150
IA_1
170
IA_2
172
IA_3
174
IA_n
176
168
INTERACTION MANAGER
160
SPEECH SERVER
124
SPEECH API
126
VOCABULARY
164
SPEECH ENGINE
118
TTS
120
SR
122
102

Fig 1



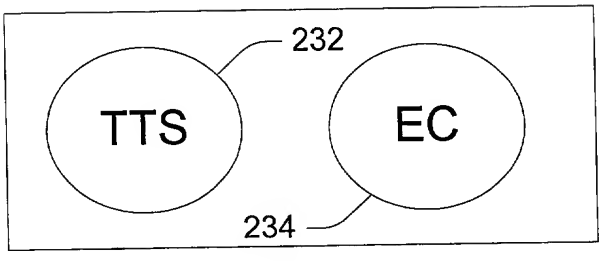
INTERACTION A
200

Fig 2a



INTERACTION B
220

Fig 2b



INTERACTION C
230

Fig 2c

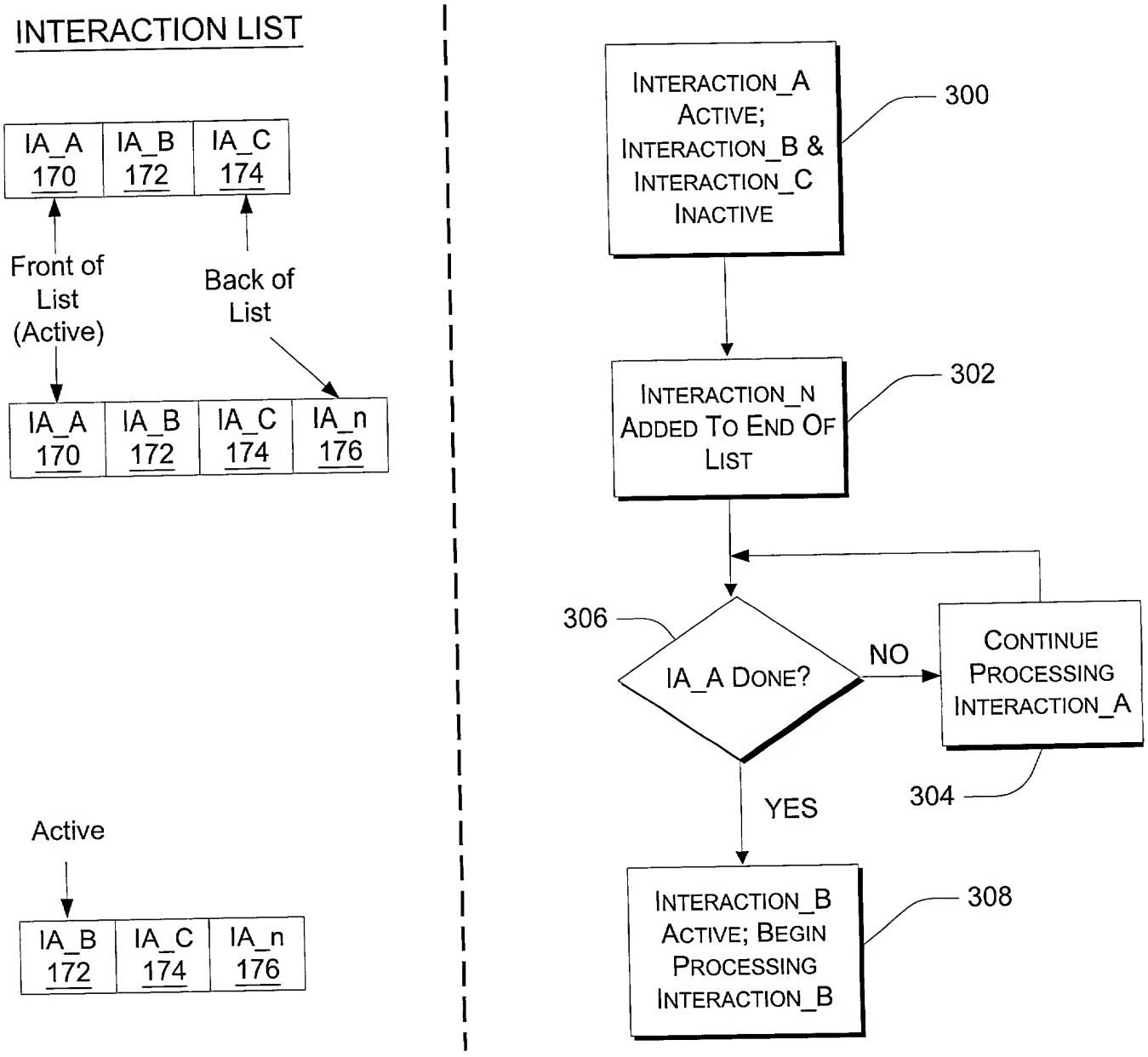


Fig. 3

INTERACTION PROCESSING

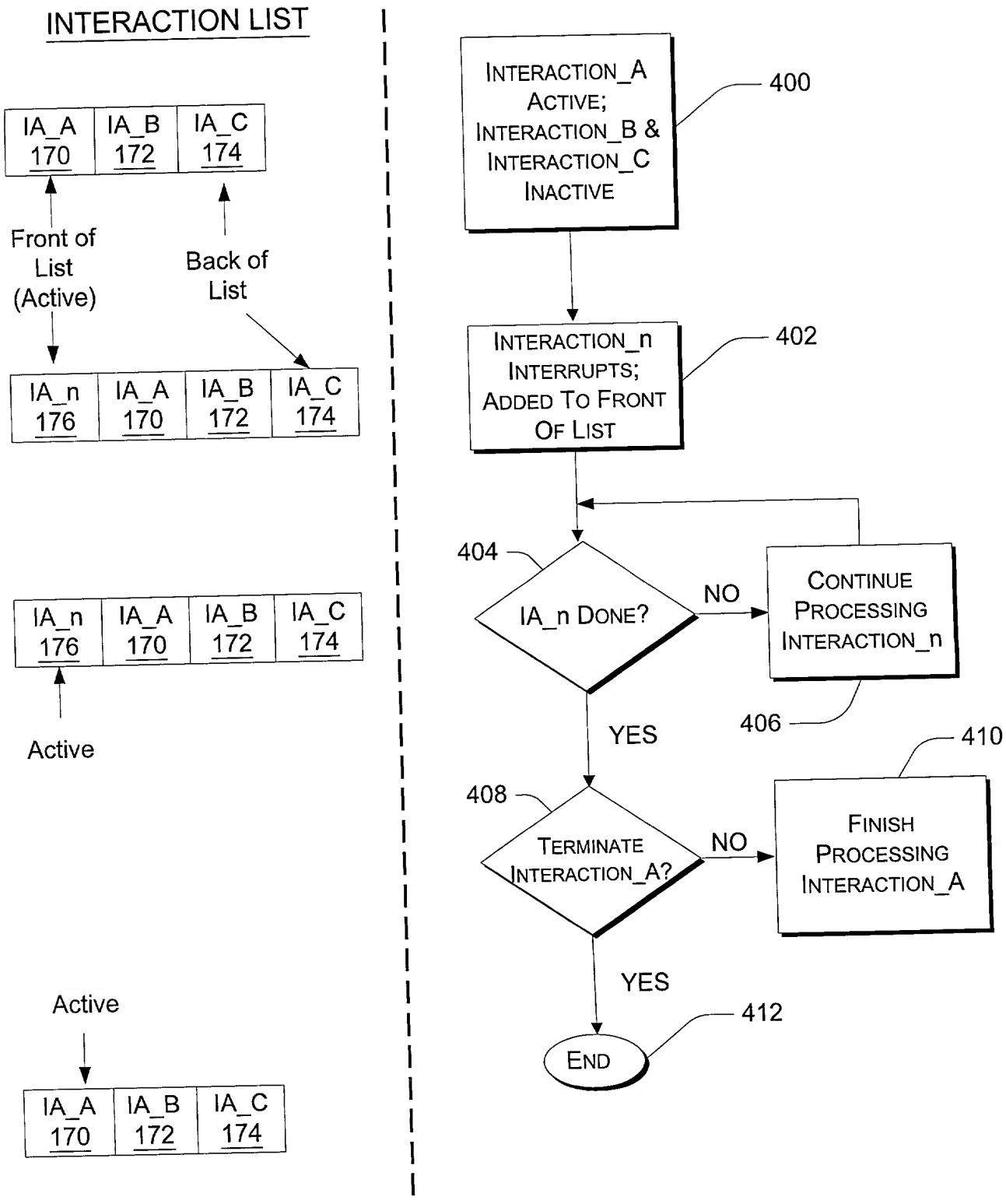


Fig. 4

INTERRUPTION

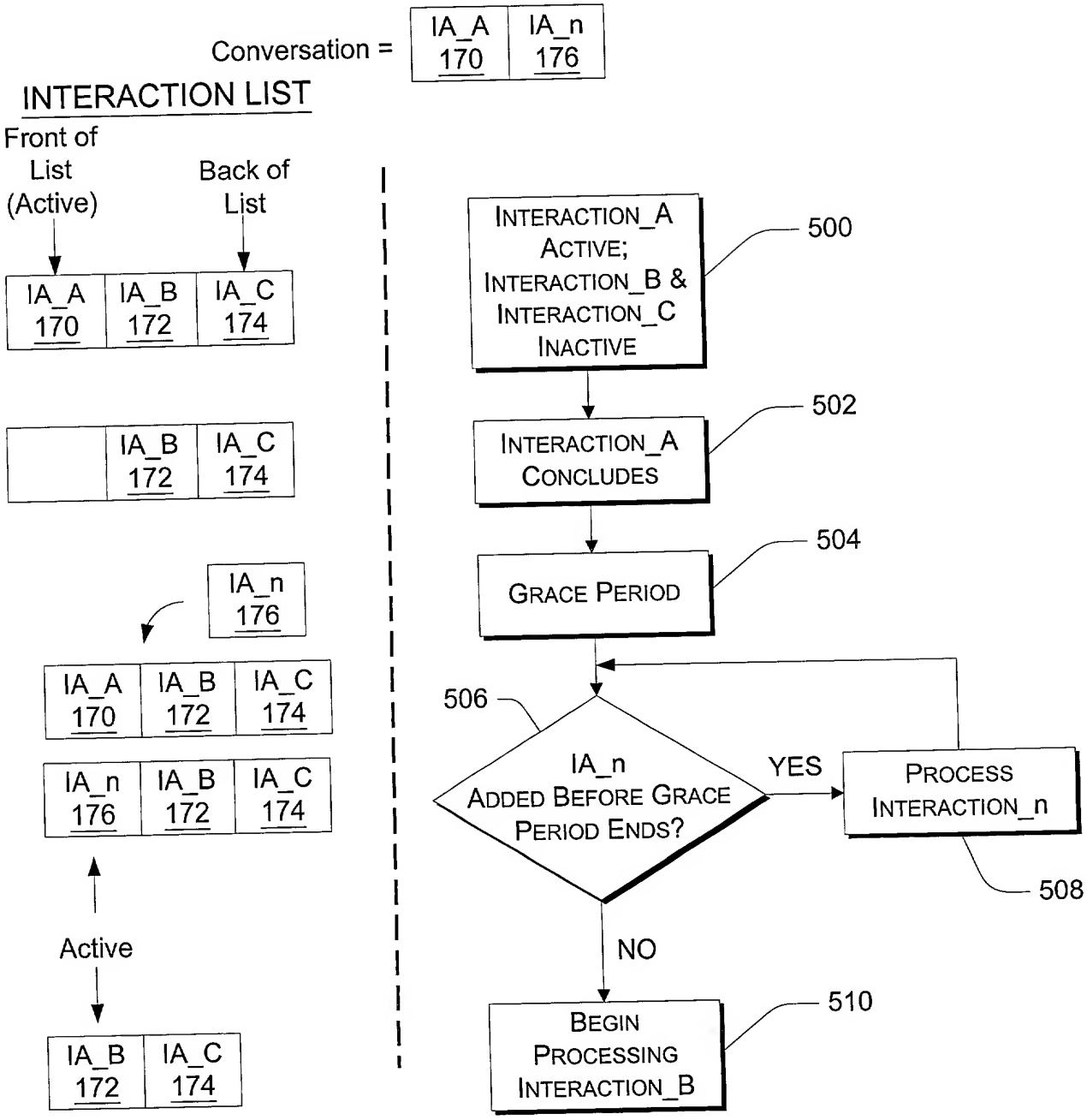


Fig. 5

INTERACTION CHAINING

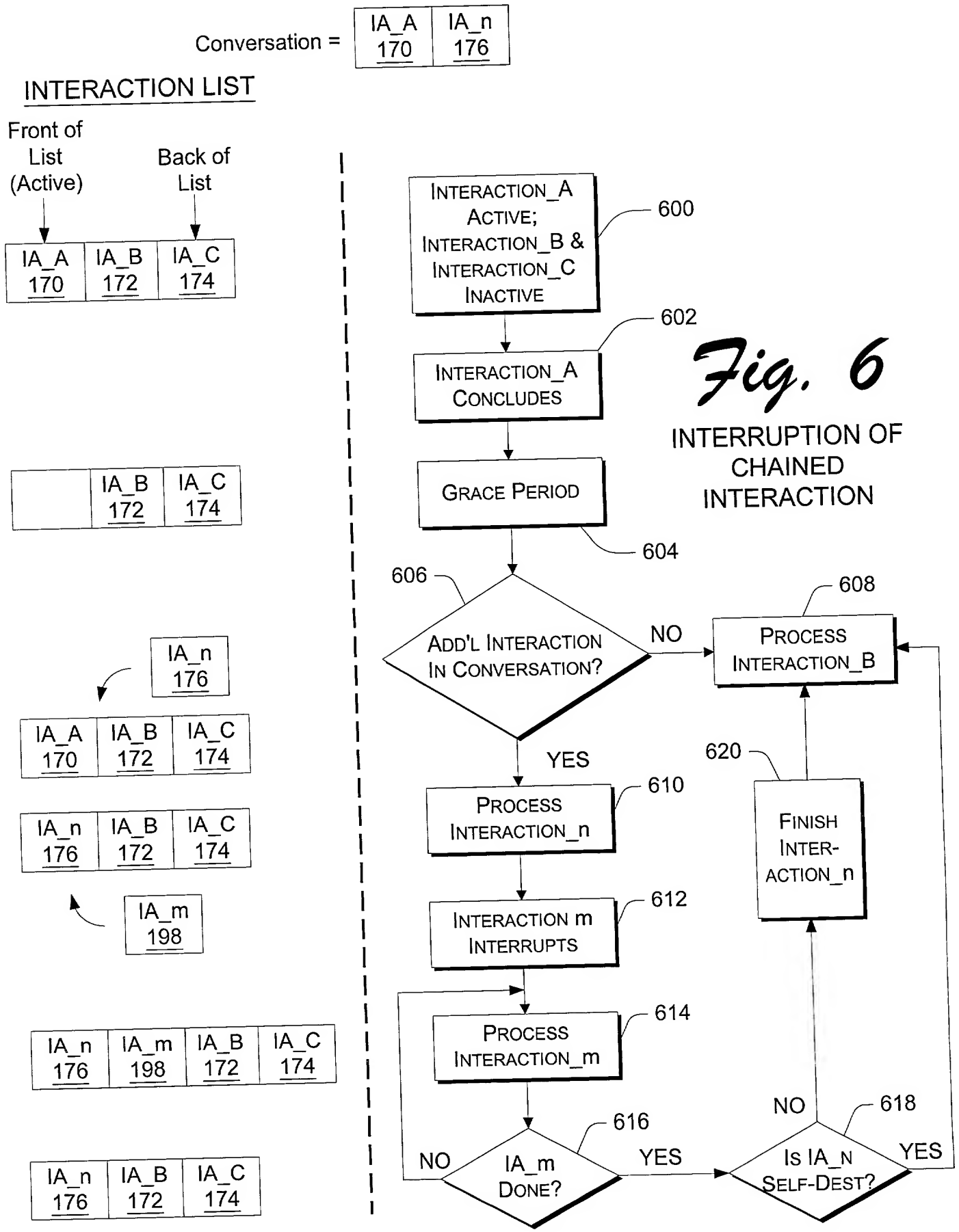


Fig. 6

INTERRUPTION OF CHAINED INTERACTION

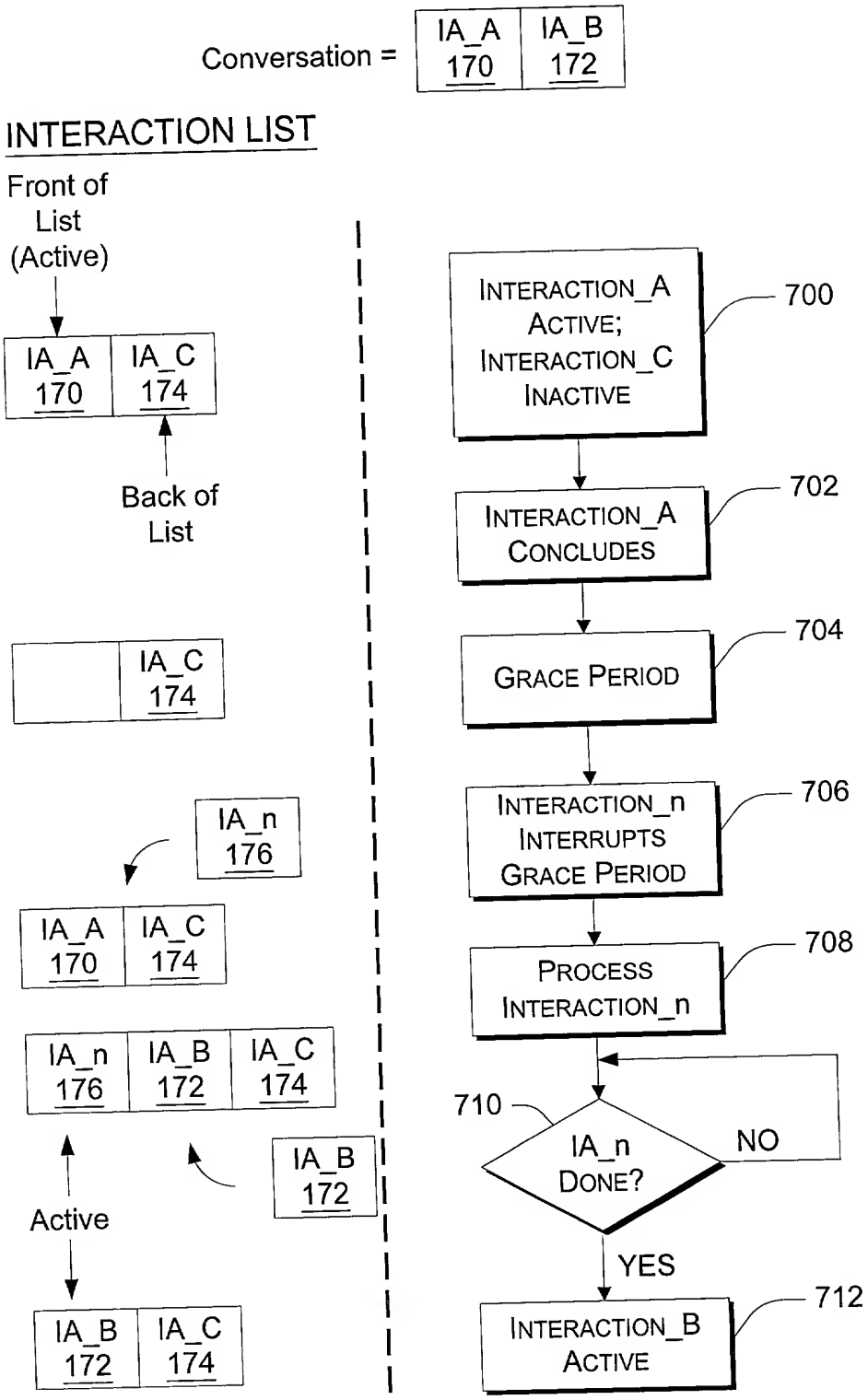
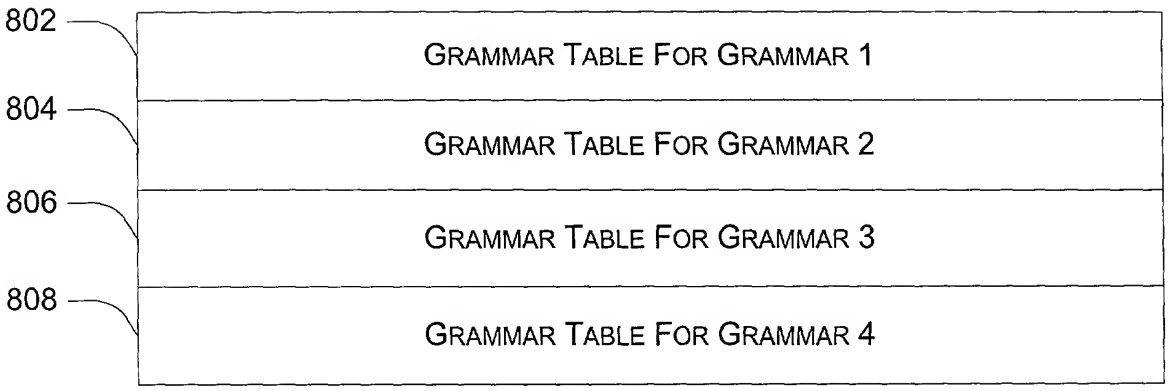


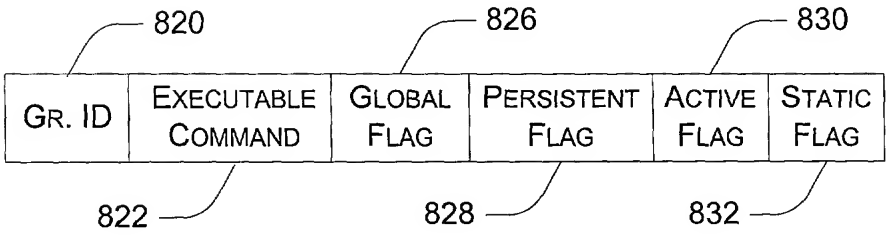
Fig. 7

INTERRUPTION OF GRACE PERIOD



MASTER GRAMMAR TABLE
800

Fig 8a



GRAMMAR TABLE
810

Fig 8b

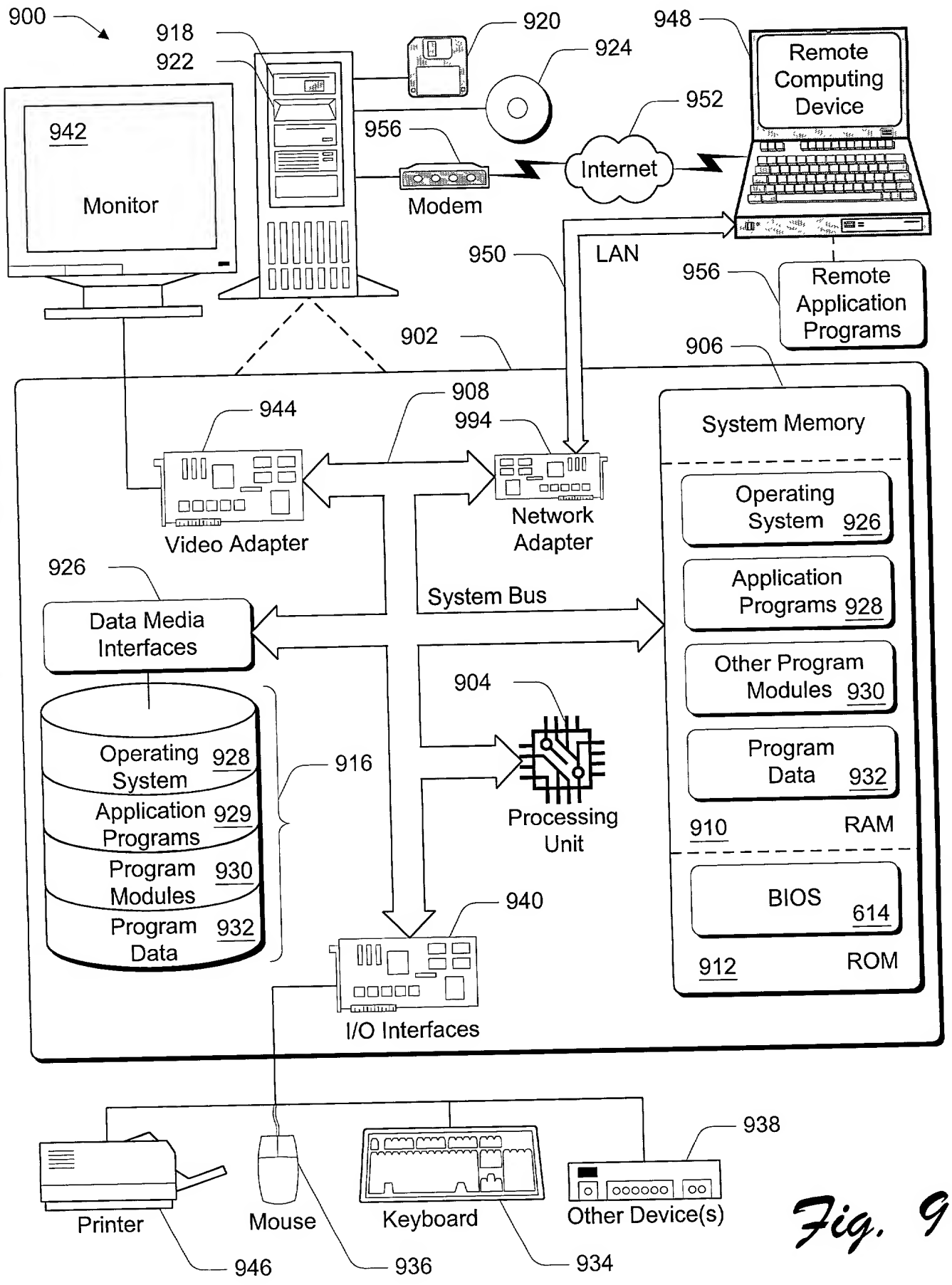

900
918
922
920
924
948
Remote Computing Device
952
942
Monitor
956
Modem
Internet
950
LAN
956
Remote Application Programs
902
906
908
944
994
System Memory
Operating System 926
Application Programs 928
Other Program Modules 930
Program Data 932
910
RAM
BIOS 614
912
ROM
Video Adapter
Network Adapter
926
Data Media Interfaces
System Bus
904
916
Operating System 928
Application Programs 929
Program Modules 930
Program Data 932
Processing Unit
940
I/O Interfaces
938
Printer
Mouse
Keyboard
Other Device(s)
946
936
934

Fig. 9

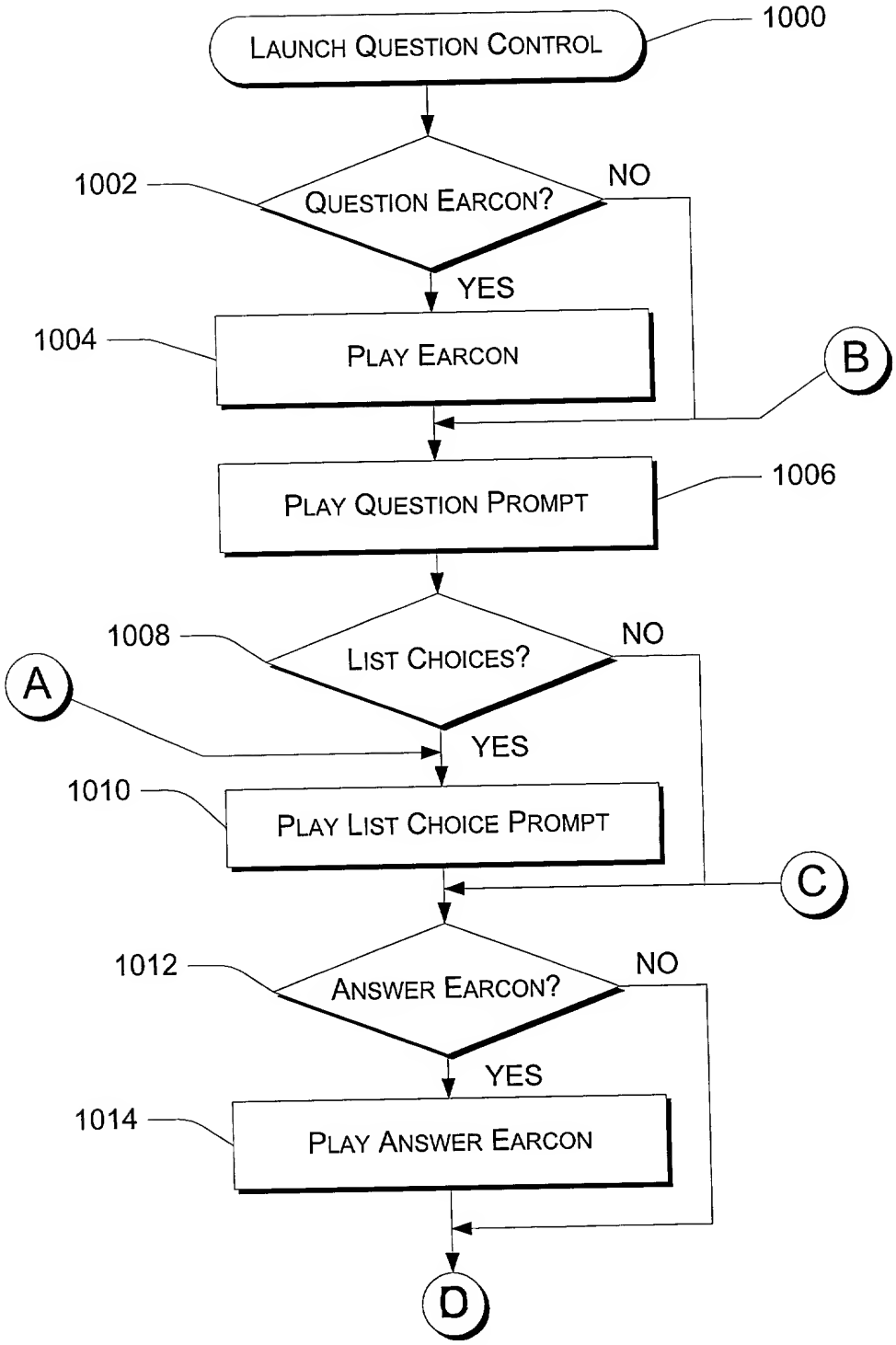


Fig. 10

QUESTION CONTROL

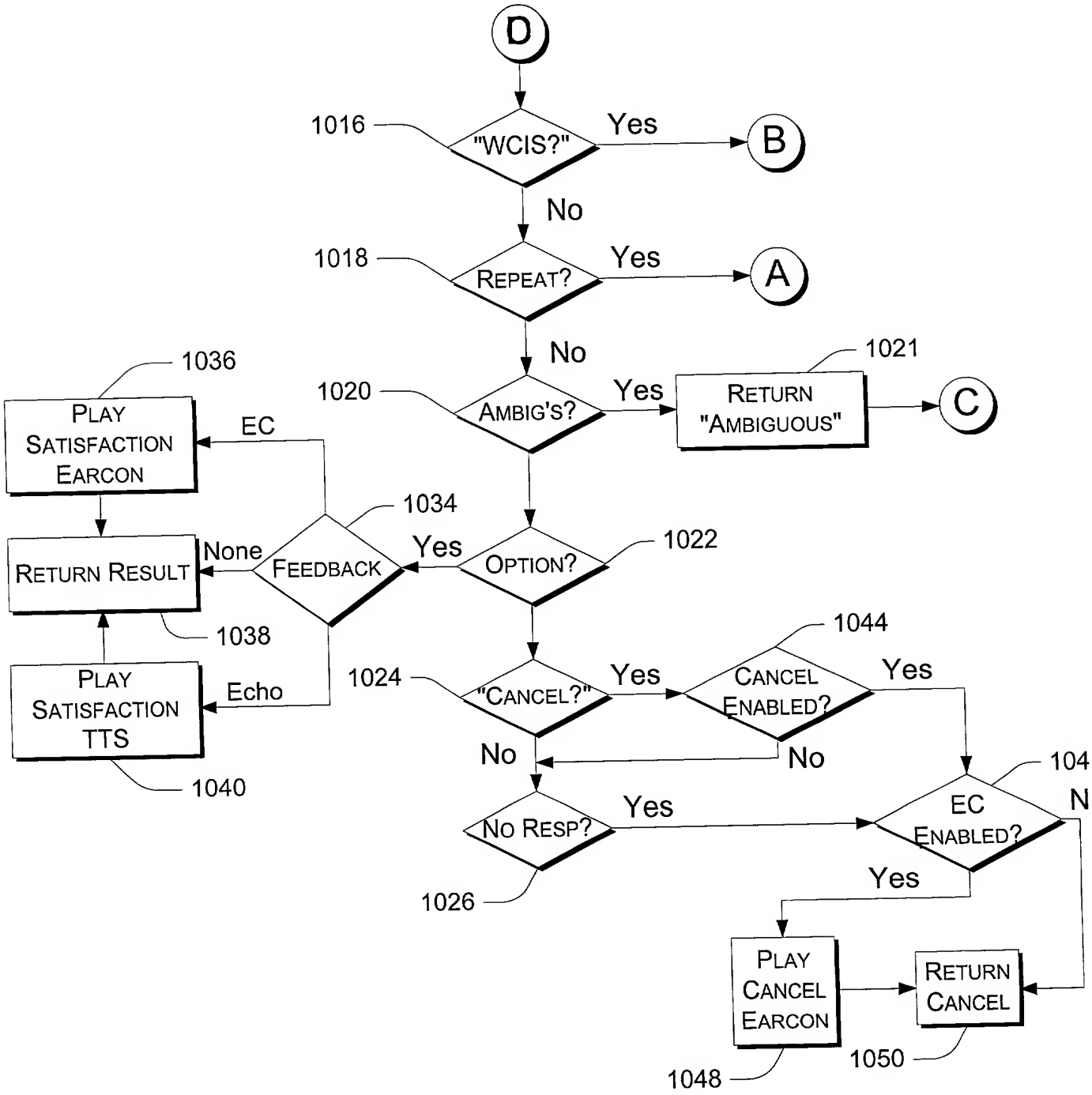


Fig. 10
(cont'd)

QUESTION
CONTROL

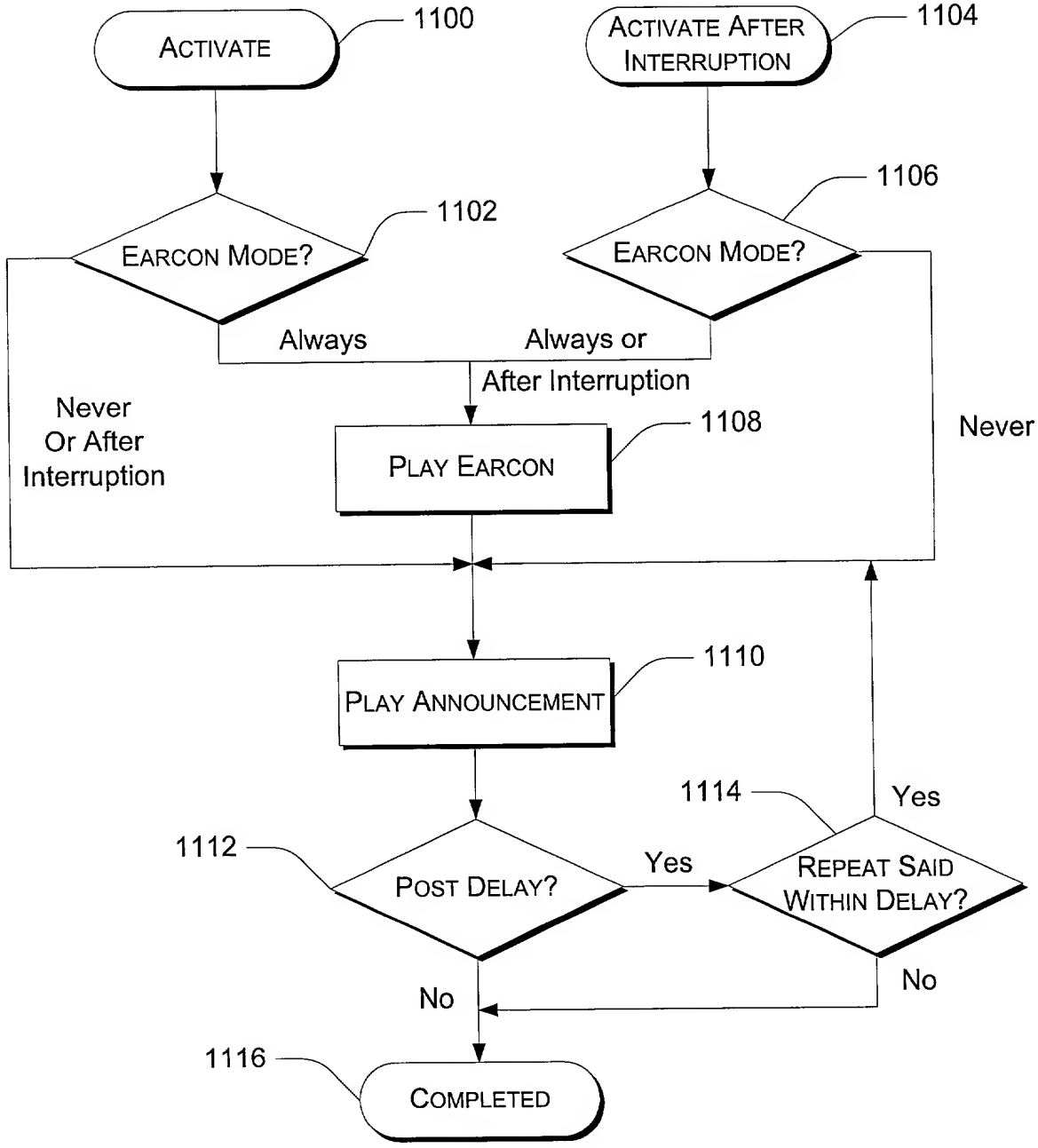
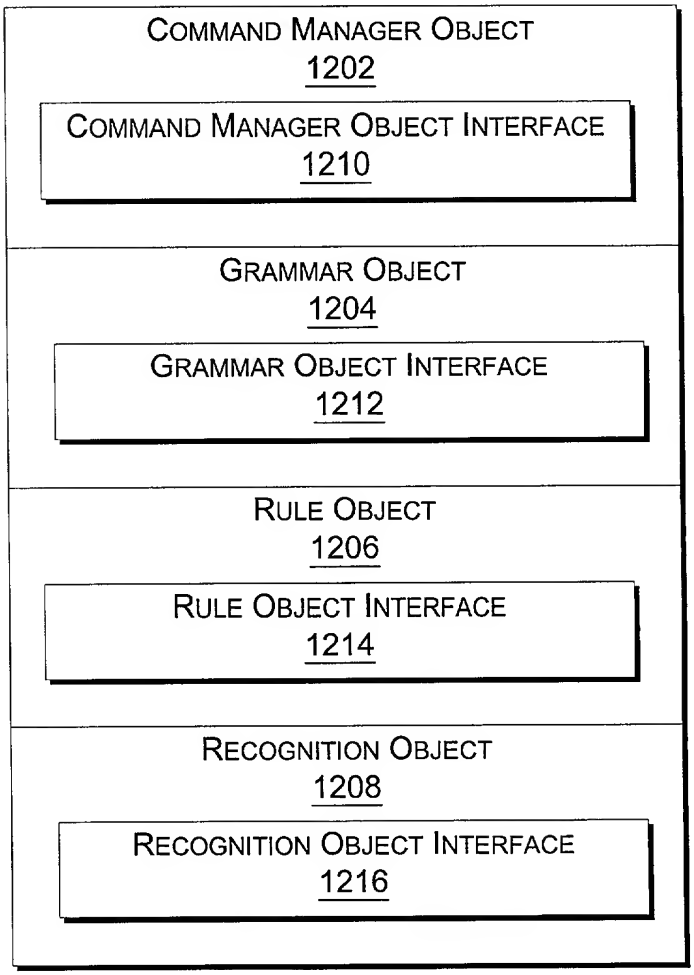


Fig. 11

ANNOUNCER CONTROL



COMMAND
CONTROL
1200

Fig. 12a

1210 **COMMAND MANAGER OBJECT INTERFACE**

PROPERTIES

1220 PERSISTENCE ID
1222 GRAMMAR ID
1224 GRAMMAR

METHODS

1226 CREATE GRAMMAR
1228 PERSIST
1230 REMOVE GRAMMAR
1232 START
1234 EVENT: RECOGNITION

1212 **GRAMMAR OBJECT INTERFACE**

PROPERTIES

1236 ENABLED

METHODS

1238 RULE
1240 CREATE RULE

1214 **RULE OBJECT INTERFACE**

PROPERTIES

1242 ENABLED

METHODS

1244 ADD RULE
1246 ADD PHRASE
1248 ADD ALTERNATE RULE
1250 ADD ALTERNATE PHRASE

1216 **RECOGNITION OBJECT INTERFACE**

PROPERTIES

1252 RULE
1254 TEXT

METHODS

1256 PROPERTY VALUE
1258 GET ALTERNATE

Fig. 12b

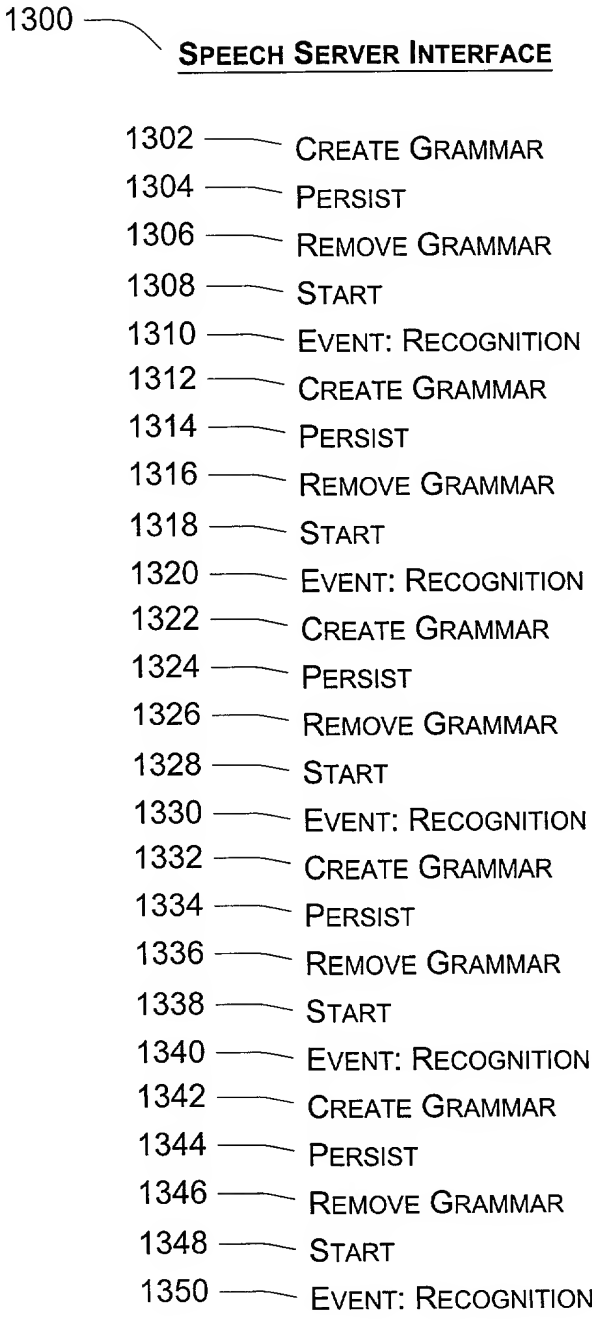

1300
SPEECH SERVER INTERFACE
1302 CREATE GRAMMAR
1304 PERSIST
1306 REMOVE GRAMMAR
1308 START
1310 EVENT: RECOGNITION
1312 CREATE GRAMMAR
1314 PERSIST
1316 REMOVE GRAMMAR
1318 START
1320 EVENT: RECOGNITION
1322 CREATE GRAMMAR
1324 PERSIST
1326 REMOVE GRAMMAR
1328 START
1330 EVENT: RECOGNITION
1332 CREATE GRAMMAR
1334 PERSIST
1336 REMOVE GRAMMAR
1338 START
1340 EVENT: RECOGNITION
1342 CREATE GRAMMAR
1344 PERSIST
1346 REMOVE GRAMMAR
1348 START
1350 EVENT: RECOGNITION

Fig. 13